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(19) (CA) CANADIAN PATENT (12)

- (54) Air Assisted Ski
- (72) Hopper, Douglas H. , Canada
- (73) Same as inventor
- (57) 7 Claims

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## ABSTRACT OF THE DISCLOSURE

An air-assisted ski for snow or water having a plurality of air receiving vents and a scooped out prow on the undersurface of the upwardly curved forward end are provided. Both the vents and the scooped out prow open into longitudinally disposed grooves on the running surface of the ski. As the ski moves, air is received in the vents and in the prow and is forced into the grooves to improve forward motion of the ski.

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. An air-assisted ski comprising:

an elongated ski body having an upwardly curved forward end, a terminal end, an upper surface to which the foot of the user can be secured, and an undersurface for contacting a skiing surface.

a scooped out prow provided in the undersurface of said upwardly curved forward end;

a pair of transversely spaced, longitudinally extending, opposing parallel grooves provided on said undersurface terminating at the rearward end thereof at said ski terminal end and terminating at the forward end at said scooped out prow;

at least one pair of spaced apart air vents extending through said top surface and registering with and opening into said parallel grooves, said air vents being inclined at a substantial angle from the vertical and extending in a rearward direction through said ski body; and

a raised portion extending above said ski upper surface at the rear of said air vents so that air sweeping past said vents and said scooped out prow is intercepted by said raised portion of said vents and the forward end of said ski body and is forcibly induced

through said air vents and said scooped out prow and from there into said parallel grooves to create a cushion of air upon which said undersurface at least partially rides.

- 2. A ski according to claim 1 wherein said vents begin at the outer edge of said uppersurface and are inwardly directed to the center of said respective grooves.
- 3. A ski according to claim 2 wherein a single center ridge located between said grooves is provided on said undersurface, said center ridge blending into said scooped out prow at the forward end of said ski body.
- 4. A ski according to claim 3 wherein said air vents are oval shaped and provided at approximately 6 to 10 inch intervals along said ski body, said air vents being inclined at an angle from the vertical of between 75 to 80 degrees.
- 5. A ski according to claim 4 wherein said vents are provided at approximately 8 inch intervals.
- 6. A ski according to claim 2 wherein said parallel grooves have a semi-elliptical shaped cross section when viewed in a plane perpendicular to the longitudinal axis of said grooves.
- 7. A ski according to claim 6 wherein said scooped out prow has a semi-elliptical cross section when

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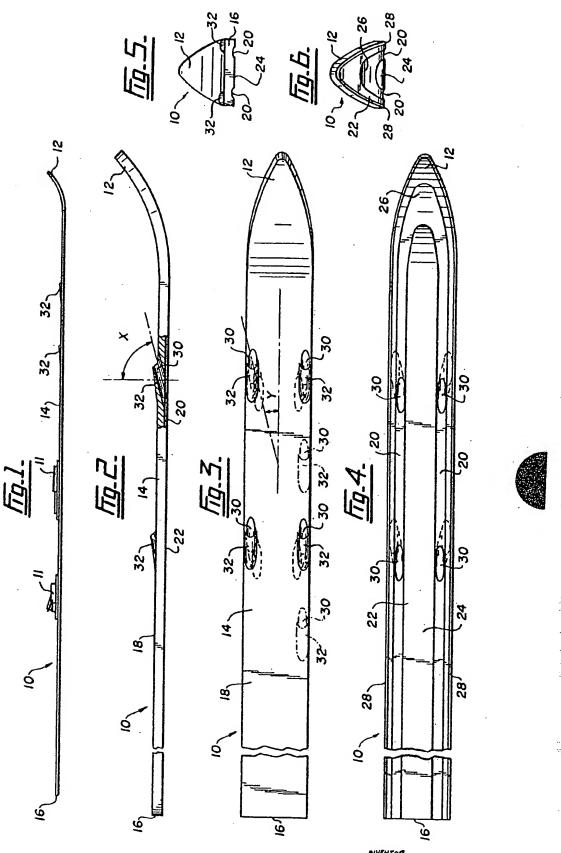
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viewed in a plane perpendicular to the longitudinal axis of said ski body.





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